

White Paper

Report ID: 116000

Application Number: HD-229114-15

Project Director: Kaiama L. Glover

Institution: Small Axe, Inc

Reporting Period: 6/1/2015-6/30/2016

Report Due: 9/30/2016

Date Submitted: 10/8/2016

NEH-ODH *SX* ARCHIPELAGOS WHITE PAPER

Abstract

Our project has been to develop the working prototype for an intellectually rigorous, sustainable, and ethically constructed platform for the publication of peer-reviewed digital scholarship using minimal computing principles. Our context is the field of Caribbean Studies, but our foundational mandate was to develop a model for wide use in the realm of humanities publishing.

Introduction

Built, crucially, on the solid foundations of a longstanding peer-reviewed print project, *sx archipelagos* has been designed to respond directly and creatively to methodological concerns regarding publication and dissemination of scholarly materials in general, and digital scholarship in particular. In conceptualizing the platform we foregrounded six specific and interrelated core questions:

1. In what ways might digital technologies enable the sustainable publication of rigorous scholarship without becoming prohibitively expensive or otherwise inaccessible to the communities we are committed to serving?
2. How might we, as publishers and ourselves Caribbeanist scholars, encourage and facilitate our colleagues' investment in the production and dissemination of the knowledge they generate?
3. How do we train and cultivate both producers and reviewers of quality digital scholarship?
4. How can we mobilize the digital environment to address issues of long-term preservation and access to academic literature in building this publication platform?
5. How might we foster a community, provide opportunities for collaboration, increase availability, and thereby work to narrow the gap between researchers constrained by stubborn geographical and socio-economic boundaries?
6. How do we facilitate the professional recognition of digital humanities scholarship?

We originally intended to generate two distinct platforms: one, a platform for the publication of peer-reviewed, *text-based* scholarly articles using minimal computing principles; and two, a platform for the development, publication, and long-term preservation of multimodal *digital* projects. It soon became apparent that, while we would be able to successfully execute the former prototype more or less exactly as planned, we would need to adjust somewhat our approach to the latter.

We should begin by noting that the completed project was an unqualified success. In May of 2016, we launched the [first iteration](#) of *sx archipelagos* and found that we had managed to address each one of the core questions undergirding this experiment. The platform currently comprises three discrete valences: media-enhanced traditional scholarly articles; peer-reviewed digital projects; and digital project reviews. The first and third valences reflect our efforts to minimize the logistical and social/labor costs of scholarly publishing via the use of plaintext simple markup (Markdown) and static site generation (Jekyll), and to provide a forum within which scholars might publish research best communicated using various forms of multimedia.

This turned out to be something of a learn-as-you-go regarding the editorial workflow. Could we convince scholars to submit their work in plaintext? How important was that praxis to us given the possibility of enacting conversion from .doc to .md on the editorial side? What kind of training did we need to provide our copyeditor in order for her to manage the Markdown files?

Because we were working on a deadline—both with respect to the grant period and to the launch/publication date promised to our contributors, we ultimately were less demanding of our authors than we plan to be in future. That is, we took it upon ourselves as editors to manage the .doc to .md plaintext conversions, and thus “spared” contributors this training for this first iteration of the platform. Aside from that change, we were gratified to see the streamlining of our workflow occasioned by the ability to render the articles using the automatic document converter Pandoc, insofar as we economised on conversion and markup costs, and were able to seamlessly integrate the articles into our static site.

Similarly, the digital project reviews that make up the third valence of the platform are essentially variations on an existing scholarly theme. Based on the model of the scholarly book review, this element of *sx archipelagos* offers published reviews of existing digital scholarship and so provides an opportunity for digital humanists to have their work evaluated both with respect to its technological merits and in accordance with the intellectual standards set by the field of Caribbean Studies.

Valence two of *sx archipelagos* diverged significantly—and organically—from our initial intentions. Though in our original conversations we had imagined ways to help with the hosting of digital projects, we quickly realized that such an enterprise would far surpass the financial and human resources we would be able to devote to our shared project. We came up instead with an alternative that far better—more capaciously, more efficiently, albeit differently—addresses the challenge we initially set for ourselves: we accept submissions of mid-stage digital projects which we put through a rigorous, single-blind [review process](#) and launch on our platform.

Implementation

Human Resources

The team for the first installment of *sx archipelagos* consisted of three content editors, three infrastructure architects (overlapping in one case with one of the content editors), one copy-editor, and a graphic designer. The original team was only needed to develop the current architecture. In the future, the two editors and the copy-editor will be able to run the journal.

The Software Stack

Overall, the impetus for the software stack is founded on ideas and practices generated out of Columbia's Group for Experimental Methods in the Humanities' minimal computing track and the GO::DH minimal computing working group. In the case of *sx archipelagos*, we strove for a balance between ease-of-use, advocacy for plain text formats, bandwidth constraints in the Caribbean, preservation requirements, costs of implementation, and the division of labor.

After early deliberations, we decided to ask authors and reviewers to communicate with the editors and copy-editor using whatever office format they were most comfortable with—a decision specific to the first issue, as you will see below. All contributors ultimately chose Microsoft Word Doc format. Article review was conducted over email using a spreadsheet to keep track of contributions. The copy-editor gave feedback in MsWord. The review of digital scholarly projects was conducted over email and did not involve Office formats. Once the contributions achieved relative stability, we converted them to Markdown using the general file format converter, Pandoc. Once Pandoc provided us with the Markdown content, one of our editors added metadata in the form YAML headers to each document. These Markdown files, with YAML metadata, became the center of our software gambit and the final review stage.

The set of technologies, or [stack](#), undergirding *sx archipelagos* converts single Markdown files into two derivatives: a PDF and a static website. The design for the site was provided by a professional graphic designer as a series of static wireframes. We used this design as inspiration to produce both the CSS for the website and the ConTeXt stylesheets. The ConTeXt stylesheet and the script were produced by one of our infrastructure architects. The CSS and the functional adaptations to Jekyll using the templating language Liquid were done by the other two architects. The architects worked together to ensure faithfulness to a common Markdown flavor, in our case, Kramdown. Once the scripts were in place and the central Markdown files were in the right folder, the whole site and the PDFs were generated invoking one bash script.

Although our website and PDFs have a specific design, the stack itself is easily generalizable by other journals desiring to follow in our footsteps.

Feature Highlights

- The HTML in the web version of the articles provide metadata in 3 formats: a) Dublin Core for Worldcat and general purposes; b) OpenGraph for social media distribution; and c) Highwire Metadata for Google Scholar and Google recognition. The PDFs also provide embedded metadata in native format.
- We will be soon discoverable through the Directory of Open Access Journals.
- The pages have very light javascript needed for the sidebar drawer and social media interaction. The purpose was to provide light HTML pages, easily accessible on mobile media globally. Such pages are forward compatible in that they are easy to maintain and to preserve. .
- Featured digital humanities projects are hosted and maintained by their creators.
- We partnered with Lots Of Copies Keep Stuff Safe (LOCKSS) for deep archival preservation.
- All the code and content is available on Github for re-use.
- Authors and reviewers retain their copyright, and agree to offer the published content with a CC-BY 4.0 International License.
- Interactive media is separated from the main article pages. PDF and web pages display screen-captures with a link to the interactive content in full-screen mode. We decided to do it this way to allow for the graceful degradation of unstable interfaces linked to the content.
- We run a suite of tests on the site using Travis. The most important feature is the use of an automatic link-checker to warn us of link rot. In future iterations of the project, we will ask authors and reviewers to provide us with Internet Archive links whenever possible.
- We have unique URLs for all the articles and reviews.
- Attention to reading aesthetics without the need for 3rd party software other than a browser.
- Responsiveness geared towards a broad community of Caribbean readers who access the Internet mostly through their cellular networks.
- We created a private Github repo for pre-publication editing and a public one for production.

Lessons Learned and Correctives

Several obstacles surfaced as we began to work in earnest on our project, from which we've derived many lessons for future work.

sx archipelagos is part of a larger scholarly group, the Small Axe Project, which demanded unity of design. This set us on a difficult trajectory because we were building a completely different stack from the rest of the scholarly properties in the project and taking on roles that had been traditionally outsourced to 3rd parties. Though it was mutually agreed that besides a common purpose, design would bring us together, there were misunderstandings across the board about what design meant in our context. A failure to distinguish between graphic design provided in the form of images, and the work of web design involving the production of stylesheets led to delays, but the conversations as a larger team actually made us stronger for our future collaborations. Going forward, though, we learned that when working as a subset of a team, we should provide spec requirements and MOU's that take implementation deliberations away from the larger organization.

We also drew many lessons from our conversations with authors and our copy-editor to provide their contributions directly in Markdown. The copy-editor learned quickly how to navigate a Markdown document, but we were not able to find the right editing environment for her, one which wouldn't require her to set up a terminal/text-editor/ruby environment or for us to maintain a database, defeating the minimal stack under our control. In the future, we will leverage Github's web editing interface for the copy-editor's work.

A minor, but crucial stumble arose because our site lives in the same server as the rest of the Small Axe Project properties. Before the re-design of all its web properties, the bulk of their properties lived in a server that had been compromised by hackers. Because the project was in transition, there was little we could do to redress this. This prevented *sx archipelagos* from being indexed by Google Scholar or Google, despite all the necessary steps on our end to ensure the indexing. We are now in the process of asking Google to re-index us.

While we were building the project, we were also engaged in several ancillary activities and projects that would help us build capacity for minimal computing approaches. In particular, we sought to determine realistic time spans for teaching novices how to work in plain text environments. In order to arrive at fair assessments we conducted a variety of pedagogical experiments in different settings—from workshops to a full-blown semester-long course with a minimal computing component. We learned from these activities that a plain text editing environment can be taught between 10-30 hours of dedicated activity depending on prior digital literacies and general attitude to non-graphic user interfaces.

Future Plans

The NEH Digital Start-Up grant allowed us to build much of the scaffolding that we will need in order to continue at great reduction of cost and labor in the future, and that others can replicate in order to reduce their own labor and costs. We remain grateful for this opportunity. It is our intention to continue this venture, further streamlining the editorial workflow so to fully enact our minimal computing objectives. Specifically, contributors to future iterations of the platform, projected for May and November 2017, will undergo the necessary training to submit their materials in plain text. In addition, we will ensure that our copyeditor is prepared to work with Markdown files. In addition, we look forward to increasing the number of mid-stage digital project teams we will work with next year. This will involve hiring competent part-time support staff to manage editorial interaction with both the contributors and digital peer reviewers.

As noted above, we are thoroughly pleased with the outcome of our proposed project and happily anticipate feedback from the Office of Digital Humanities and from our wider scholarly community.